COMMENTS ON
A VISION FOR CALIFORNIA'S DELTA

Submitted by The Coalition for a Sustainable Delta

In the following document we respectfully submit our comments to your second draft of the Blue Ribbon Task Force Delta Vision. We believe the twin goals of Delta sustainability and reliable water supplies can be achieved through your principles of operational flexibility in water management and an adaptable Delta ecosystem that is able to face inevitable future changes and challenges. We also believe that improvements to conveyance, increased storage and self-governance of the water projects are essential and will enable the projects to meet their historical water obligations without adverse effects to the Delta.

Executive Summary

We support your principle of operational flexibility. As you have stated: "In a system as dynamic as the Delta, and with climatic and other conditions changing in unpredictable ways, it is essential that management flexibility be preserved and exercised. This may mean creating multiple pathways for water conveyance so critical water supplies cannot be interrupted" (p.9, l:29-32).

The availability of non-local supplies for groundwater recharge are extremely important. This requires, as the Task Force has appropriately noted, increased storage and conveyance capacity (p.3, l:36-37). Attention also needs to be given, consistent with the constitution, on water flows to the ocean that provide no significant environmental benefit but could satisfy beneficial uses by water users.

We disagree with the contention that we should expect less water to be conveyed through and around the Delta (p.3, l:28-31). This contention seems to be unsupported. The State has an obligation to provide water under the State Water Project Contracts and has an obligation to build the facilities necessary to provide the contracted supply. Additionally, we expect that the State's current and future needs can only be met through a combination of measures including both conservation and more reliable conveyance. These water management tools can be used to direct and store more water in wet years without harm to the Delta ecosystem.

We advocate management of the water conveyance system by the water system users as part of the governance. We believe that the people who pay have the right to elect their leadership and therefore govern their project spending and management on an ongoing basis. Without a direct voice in the management of the water systems, history has shown that operational efficiency and accountability decline. For instance, Department of Water Resources (DWR) management has already projected a major problem in being able to hire and train qualified operations and maintenance personnel to operate the SWP due to salary limitations and other factors. We also believe that increased participation of water users will improve conflict resolution and prevent

courtroom gridlock. Finally, history has not shown abuse, or even use, of excess capacity[1].

Various experts have noted that native species have not done well under the existing state policy of preserving a static delta and that a more variable delta will be far more advantageous to the native species. The policy of a static Delta has been implemented at the expense of both the native species and regulated water flows and needs to be questioned.

Finally, we support your concept of a strong, adaptive ecosystem that *"not be defined in terms of a static end state, but rather in terms of beneficial functions and uses that it provides" (p.7, l:37-38).* Impacts of invasive species and other biological stressors have, and will continue to, impact the historical habitat of the Delta. We should work towards a resilient Delta that will be capable of adapting to the changes that all ecosystems—including the Delta—will experience over time.

Introduction

The purpose of this document is to provide comments on the draft of "A Vision for California's Delta" dated October 17, 2007 ("Vision Draft").

My name is Scott Hamilton. I have a Ph.D. in resource economics and have 16 years experience in California water issues. Resource economics is the discipline concerned with the appropriate allocation of scarce resources to meet competing demands and, we believe, is one of the many disciplines needed to develop a Delta solution..

I am submitting these comments on behalf of the Coalition for a Sustainable Delta. This Coalition, as it now stands, is a group of farmers who are concerned about the Delta, are concerned about the continued reliability of water supplies from the Delta and are concerned about what the loss of that reliability would mean to the State of California. The Coalition is also concerned that over the last several decades various government agencies have failed to recognize and address, in a systematic manner, the numerous causes of the decline of the delta habitat.

These farmers use non-subsidized water, much of which comes through the Delta, to grow high-value, non-subsidized crops. Our members have invested heavily in state-of the art irrigation systems to conserve water and in groundwater storage. As the Coalition's name implies, like you, we are concerned with developing and implementing a truly sustainable delta.

[1] For example, the installed capacity at Banks Pumping plant is 10,300 cfs. This is sufficient to pump over 600,000 af in one month. The average monthly pumping for the wet period beginning in 1995 and ending in 2006 at Banks Pumping Plant is 245,000 af. Additional capacity provides needed operational flexibility but does not, and has not, translated into exports, at or near, operational maximums.

Approach

We would like to thank the Blue Ribbon Task Force (Task Force) for your dedication, your enormous amount of hard work, your creative thinking and your willingness to challenge the *status quo* in preparing the Vision Draft. In your latest draft Vision, you outlined some basic premises and, from those, developed several vision principles. In the following pages, we will address some of your premises and principles individually.

Task Force Objectives – Basic Premises

(1a) *"The Delta vision process was created to develop a durable[2] vision for sustainable management" (p.2 l:9-10).*

(1b) *"A desired Delta ecosystem should not be defined in terms of a static end state, but rather in terms of beneficial functions and uses that it provides …" (p.7, l:37-38)*

(1c) *"The Task Force identifies the water system and the ecosystem of the Delta as co-equal values that must be preserved on equal footing" (p:2, l:26-27)*

We think that the statement in 1c raises thorny issues in an economy that has historically put a high economic value on a reliable water supply. For example, we are hearing that water users are willing to fund improved conveyance which may cost $4 billion or more. Does an ecosystem of co-equal value literally require expenditures of a similar quantity?

The concept has been proposed that the ecosystem should have its own assets. (The quantity and types of these assets is an issue that still needs to be addressed – see discussion under (2c) below). Indeed, the idea that the next two reservoirs constructed in the state should be reservoirs primarily for environmental purposes is an idea worth consideration. The level of bond funding for environmental benefits in recent "water" bond measures suggests there is an increasing awareness of the need for, and an increasing willingness to pay for environmental benefits.

Whether the level of funding for environmental measures will equal the funding for a reliable water supply is an unanswered question, but we think it is unproductive to imply as in statement 1c that preservation of the ecosystem must somehow "equal" the preservation of the water system. Instead, it is our perception that the Task Force promotes a proactive plan for environmental regeneration that should be as equally as important as the water conveyance plan. We would support that position, and accordingly we request that the Task Force consider rewording statement 1c.

[2] We interpret "durable" to mean "able to last a long time".

Delta Conditions - Basic Premises

(2a) "*The Delta is a unique place that has value in its own right" (p.3, l:1)*

(2b) *"The current situation in the Delta is not sustainable" (p. 15, l:26)*

(2c) *"The Delta is an extraordinary complex system that in many ways defies comprehensive understanding" (p.4, l:45-47).*

Listening to the Task Force's deliberations on October 25th, 2007, it was clear that the Task Force is concerned with developing a clear vision for the future habitat of the Delta. Lund et al. (2007), in their book "Envisioning Futures for the Sacramento-San Joaquin Delta" ("Envisioning Futures") addressed this issue as well as we have seen anyone articulate it. They say:

> *"For the past 70 years, the State's policy has been to maintain the Delta as a freshwater system through a program of water flow regulation, supported by maintenance of agricultural levees. This strategy improved water quality for Delta agriculture and water exports and was assumed to protect both native and desirable alien species (particularly striped bass). But most species have not done well under this policy… Before the Delta was drained, diked, and settled by Europeans, it was subject to significant seasonal and interannual fluctuations in freshwater inflows, which worked in concert with large tidal ranges. … This was the flow and water quality regime to which many native Delta species are adapted*."[3]

Attached to our submission are two maps from DWR's Delta Atlas which document the variability referred to by Lund et al. These two maps we believe, exemplify the dilemma the Task Force faces. Does the vision for the future habitat of the Delta perpetuate a static delta that requires large non-natural inflows of fresh water to the continued detriment of native species, or does it involve the separation of habitat from conveyance and the regeneration of a more variable, natural and sustainable delta? The problem with the latter approach is that the transition from where we are now, to where we need to be, involves a significant human cost and therefore has political consequences.

(2d) *"Over the coming decades, California's Delta will be subject to powerful external sources of change" (p.3, l:20-21) "We must learn to work with nature to achieve desired goals in the Delta" (p.3, l:13)*

[3] Lund, J,, Hanak, E., Fleenor, W., Howitt, R., Mount, J. and Moyle, p. (2007) "Envisioning Futures for the Sacramento-San Joaquin Delt, Public Policy Institute of California, p. viii

Resulting Habitat and Land Management Principles

(2.1) *"We must design for resiliency[4]" (p.3, l: 25). "Our policies for ecosystem protection and water provision must not be designed for one best solution, but for resiliency, for the capacity to recover from threats and adapt to changes many of which we cannot now predict with accuracy" (ref).*

Our first concern here is primarily definitional. "Resilient" was defined as "the capacity to recover from threats and adapt to changes". We do not think that the Task Force meant to imply that "recovery" meant return to some condition that existed prior to a disturbance. As the Task Force noted, the Delta cannot be returned to its pre-European contact condition. Similarly, we do not think that recovery should be defined by a return to a former state. Change is inevitable. Statements (2c) and (2d) suggest that the Delta ecosystem will experience continual change. While we support a healthy and durable ecosystem that can adapt to changes, we think it important not to measure success in terms of preservation or return to some pre-existing condition

As the Task Force recognizes, the Delta will be subjected to continual pressures. Because these may disproportionately affect certain species of plants or animals, we strongly support habitat management rather than species management. We believe that this will provide more flexibility in responding to changes that affect the entire ecosystem (for example, climate change). A vision for a sustainable Delta must focus on eliminating toxics, controlling invasive species, reducing physical take of native species, controlling population growth in the area, restoring habitat and maintaining some degree of separation of habitat from water conveyance. However, we believe a quixotic quest to maintain conditions or species at historical levels—without acknowledging the forces of change at work on the Delta ecosystem—will hinder more productive efforts at improving the ecosystem as a whole.

While the Task Force seems to note the increased exports over time (Figure 5) it does not seem to note or consider: the increasing importance of toxics, the increased waste water and storm runoff resulting from increased population in the area, or any plan to manage invasive species. There seems to be little documentation of changes in upstream diversions over time. We suggest that a systematic approach to land and habitat management is crucial to success.

The Task Force expressed the opinion that the *"Delta and Suisun must also contain ... sport and commercial fisheries" (p:7, l:28-29)* and as part of a long term vision, we would concur. However, this goal should not have more importance than the recovery of endangered species. While striped bass fishing is an important recreational and cultural part of the Delta, the existence of a substantial bass population threatens the

[4] Resilient was defined in the Vision Draft as *"the capacity to recover from threats and adapt to changes" p.15, l:38-39*

survival of some endangered species. The law simply prohibits management of a sport species at the expense of endangered species[5].

(2.2) Reduce reliance on levees wherever possible. Respect nature and work with nature to achieve desired goals (p.17, table, row 3). *"Reliance on levees should be reduced" (p.3, l:43).*

(2.3) *"[T]here must be increased recognition, increased status, and increased protection of the Delta as a place, not just a water supply or a species habitat" (p. 11, l:38-39). "To preserve the Delta's place values, the region's landscape must continue to be dominated by agriculture, wildlife habitat, and recreation, with mutually beneficial mixtures of these wherever possible" (pp. 11-12, l: 47, l: 1-2).*

We agree with this principle but, taken to its logical conclusion, it has significant implications. According to the Envisioning Futures report, "[t]he Delta is often thought of as a site of high-value fruit and vegetable farms, but roughly 75 percent of the farmland is actually devoted to lower-value pasture and field crops; in comparison, only 55 percent of farmland statewide is devoted to these uses".[6] A significant part of in-delta agriculture involves growing subsidized crops on land below sea level. The peat soils in certain areas may have been fully depleted so that subsidence is no longer occurring. In places where subsidence is likely to continue, we recommend implementing a plan to acquire the strategically important land from willing sellers for creation of habitat by responsible caretakers, such as the Nature Conservancy, with the support of public money if needed. In some cases, perhaps the Delta islands should simply be allowed to flood and/or filled over time and re-established as elevated islands. We believe the achievement of this conversion should occur in a staged and transparent manner.

According to the Envisioning Futures report, if lands in the central, northern and western delta continue to be farmed, subsidence could continue on those islands for much of the next century.[7] To the extent that agriculture dominates the Delta landscape, Principle 2.3 directly conflicts with Principle 2.2. Continued subsidence of the soil on the farmed lands in the central, northern and western delta will increase the magnitude of the hydrostatic forces acting on the levees, thus increasing the potential for levee failure.[8]

Water Conditions – Basic Premises

(3a) The constitution of the State of California requires that *"the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented…"* Article 10, Section 2 of the California Constitution.

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[5] Palila v. Hawaii Department of Land and Natural Resources, 639 F.2d 495, 498 (9th Cir. 1981)
[6] Lund, J,, Hanak, E., Fleenor, W., Howitt, R., Mount, J. and Moyle, P. (2007) "Envisioning Futures for the Sacramento-San Joaquin Delta", Public Policy Institute of California, p. 12.
[7] Id. at 47.
[8] Id. at 45-50.

Recently this provision has been used to divert water from water rights holders to preserve environmental assets. Attention now also needs to be given, consistent with the constitution, to reducing excess water flows to the ocean (that provide no significant environmental benefit) for delivery to water users for beneficial use.

(3b) Water resources are subject to the public Trust Doctrine …(p.2, l:19) (California Constitution) *"Water is a public trust, to be managed appropriately for identifiable public benefit and preserved for future generations". (p. 14 l:43-45).*

(3c) *"The Delta is an important, but not dominant, part of the State's water supply." (p.9, l:9) "The Delta is more important than its share of water because it is the hub of the two largest water systems in the state" (p.9, l:11-12).*

These two statements are somewhat typical of several statements throughout the document addressing the importance of the Delta to the State's water supply. In some places the importance is emphasized and in other places downplayed. While the percentage of the State's water supply conveyed through the Delta may be a relatively small part of the total consumption by M&I and agricultural users, the loss of this conveyance would have devastating impacts of the state's economy and the welfare of its people. We do not believe the importance of the Delta for water conveyance should be downplayed.

(3d) *"More water is commonly exported from the Delta in average and dry water years than is exported during wet years." (p.10, l:3-4). "The current infrastructure for water conveyance and storage limits ability to capture and store water during high flows for use in dry years." (p.10, l:5-7)*

We disagree in part with statement 3(d). Most water is exported from the Delta in wet years, not dry years. For example, Water Year 2006 was one of the wettest since 1990 with an Oct-Sep Delta inflow of 50.7 million acre feet (maf). It also equaled the largest SWP/CVP exports with 6.3 maf being exported. Since 1990, the average quantity of water exported in years classified as Above Normal on the Sacramento River since 1990 averaged 6.0 maf. This compares to exports in dry years of 5.3 maf.

However, despite the efforts of water users to develop groundwater storage facilities to capture excess high flow water, in the very wettest years, local supplies often fill local recharge projects, leaving little room for imported supplies. In dry years, the availability of non-local supplies are extremely important. This illustrates the importance, as the Task Force has appropriately noted, of increased storage and conveyance capacity. Necessarily, this includes additional conveyance through or around the Delta in above normal years and facilities to store that water in order to reduce reliance on the Delta in the critical years when the Delta may be more vulnerable. Once again, these additional storage and conveyance facilities, if constructed to provide more separation from the Delta habitat, lead to a more sustainable Delta and a more reliable water supply.

(3e) *"[W]e do not envision any increases in available [water] supplies for transport outside the Delta. To do so would compromise our priority for ecosystem protection." (p.15, l:34-35). "We should also expect that water exports from the Delta will be reduced in the future." (p.3, l:28-31)*

Statement (3e) conflicts with the Task Force's acknowledgment in (3d) that limitations in storage and conveyance during high flow years are a critical bar to properly managing the water supplies through the Delta. With an increased ability to capture and store excess Delta water in the wet years, water diversions should not conflict with ecosystem protection.

Much of the water that flows out of the Delta in wet years provides no environmental benefit. In flood years, the high flows may actually cause significant harm. Delta smelt abundance, for example, seems to be low in years following flood events. It appears that high Delta flows can be used far more effectively than they are being used now. The net result is that additional exports do not have to occur at the expense of the ecosystem, particularly if increased separation can be achieved between conveyance and habitat. It is important to realize that we are not advocating any increase in entitlements for water users south of the Delta. Rather, we believe that improved conveyance and storage facilities, supported by efficient conveyance and storage practices, could provide water users with their full contractual water entitlements without adverse effects on the Delta habitat.

Water Management Principles

(3.1) Separation of habitat from conveyance is desirable. *"Separation of water for human uses from water for the ecosystem" is key. (p.3 l:31-33). "In order for both [the water supply and the ecosystem] to thrive, however, a greater physical or operational separation of the two must be achieved. Achieving this separation must proceed in a staged and transparent manner, so the effects of any action upon the ecosystem and the water supply can be fully evaluated" (p.9, l:21-24).*

We agree that separation provides protection for aquatic species and more reliability for water supply. We understand that this "separation" could take numerous forms including: fish screens, fish barriers, partly isolated water conveyance facilities (various "through-delta" options), and fully isolated facilities. Implementation in a staged manner, sufficiently long to fully evaluate impacts on the ecosystem, seems ill-advised since such an evaluation could takes years or decades.

(3.2) Flexibility in operations is important to protect both environmental assets and water supply reliability. *"In a system as dynamic as the Delta, and with climatic and other conditions changing in unpredictable ways, it is essential that management flexibility be preserved and exercised. This may mean creating multiple pathways for water conveyance so critical water supplies cannot be interrupted" (p.9, l:29-32).*

We agree. We see this as being fundamentally important and a distinct diversion from the way water projects have been designed and constructed historically. Our vision of future Delta water conveyance would permit water to be diverted through any of a number of different conveyance facilities. This approach should help protect habitat, reduce flood risks, improve water quality and improve water supply reliability.

(3.3) New conveyance and storage is needed to be able to move water at times that it would do no, or little harm. *"New storage and improved conveyance must be constructed to capture water at times least damaging to the environment and efficiently move it to areas of need." (p.3, l:36-37).*

We agree. Given what we have said previously about the underutilization of water during high flow periods, we see that additional storage and conveyance capacity is an essential part of a more comprehensive plan to solve California's water problems. The provision of the supplies as promised under the contracts is necessary if the water users are to pay for the new facilities.

(3.4) Reliance on the Delta as a means of water conveyance should be reduced. *"Reducing reliance on water from the Delta is critical to achieving resiliency in water systems: the State must encourage regional self sufficiency and develop alternative ways to move water around the State. We should also expect that water exports from the Delta will be reduced in the future." (p.3, l:28-31) . "Reducing reliance on the Delta means building greater regional water self-sufficiency throughout California" (p.10, l:38-39).*

We disagree in part with these conclusions and believe that they are inconsistent with earlier conclusions. We believe that any realistic and sustainable water plan for California must recognize that the Delta is currently a critical water hub for the state. (p.9, l:11-13) As such, the Delta as a means of water conveyance cannot be reduced without a corresponding replacement in conveyance means, whether this be through fully or partially isolated facilities. As the Task Force has noted, "[t]he state's major supply of water is from rain and snow that falls north and east of the Delta . . . . But the major demand for water is west and south of the Delta." (p. 9, l:5-7) Since there is insufficient precipitation in the southern part of the State to sustain existing uses, more reliable conveyance and increased storage appear to be an essential component of a solution (see (3.3) above). Increased conveyance is necessary to refill groundwater storage and local reservoirs. This requires increased, not decreased conveyance through and around the Delta.

Furthermore, any reduction in water deliveries, whether achieved by moving them through or around the Delta, must consider the contractual obligations of the State to provide water under the State Water Project and to build facilities to provide such a supply. Moreover, the failure to capture the excess water when it flows to the ocean in quantities above the needs of the Delta ecosystem appears to be a violation of the State Constitution.

(3.5) California's water system, in general, and the Delta water system in particular, should be resilient.

We agree that more local storage facilities and increased conservation, to the extent that is possible, will help protect water users from disasters in the Delta. We also support the development of contingency plans contemplated by the Task Force.

Governance – Basic Premises

(4a) *"There are at least 220 governmental agencies with some authority for aspects of the Delta. We know of no individual who defends the current system of governance." (p.5, l:38-40)*

(4b) *"No improvement in the Delta estuarine ecosystem, and no protection of existing exported water, is possible without new, effective governance." (p.5, l:37-38)*

Governance Principles

(4.1) *"The future governance system for California's Delta must be granted wide authority and have its focus on the dual priorities we have identified: a protected and improved Delta ecosystem, and providing a reasonable amount of water for human purposes." (p.5, l:41-44). "The governance of these six areas need not be assigned to a single authority. However, all must be harnessed together to succeed." (p.6, l: 16-17)*

We offer qualified support for this principle. We contend that more government does not make for better government. A "super-governance structure" to us seems to have many of the same problems that has handicapped CalFed. We are concerned that we would end up with a new, large, unresponsive bureaucracy that is impotent because of internal conflicts. Rather we would like to see the habitat management under a separate single entity, the water conveyance managed by a different separate entity (e.g. a JPA of water conveyors) and other functionally specific governance entities, if necessary.

At the heart of our concern is the principle outlined on page 6, lines 41-42 of your draft Vision: "*Join decision making, financing and liability where ever possible*." In other words, we believe that the people who pay have the right to elect their leadership and therefore govern their project spending and management on an ongoing basis. Without a direct voice in the management of the water systems, history has shown that operational efficiency and accountability decline. Without that voice, the forum for conflict resolution moves to the courts and gridlock ensues. There is a concern that management of the water system by water users would lead to abuse of the system. This is not consistent with the existing conditions. The water project pumps, as they currently exist, have considerable underutilized capacity. Multiple regulations govern and limit operations. These checks and balances exist through existing regulatory agencies

including the State Water Resources Control Board, the State and Federal Environmental Protection Agencies and various wildlife agencies.

(4.2) Delta governance needs to be *"supported by an effective financing system that receives funds from those who benefit from use of public resources or public policies wherever possible"* (p:6, l:30-31)

It seems to us very difficult to correctly identify the beneficiaries of ecosystem restoration and have those beneficiaries pay according to their proportionate benefit. The beneficiaries of a healthy delta ecosystem are numerous and include recreational fisherman in and upstream of the delta, commercial salmon fisherman, recreational boaters, tourists enjoying open space, in-delta diverters enjoying clean water, and duck hunters. We believe the people of the State are willing to fund ecosystem regeneration if properly presented to them. Projects with public benefits should be publicly funded or the principle of beneficiary pays breaks down, resulting in misallocation of resources. We believe the concept of reservoirs which have, as a primary purpose, ecosystem benefits and restoration, should be given consideration. In that sense, both of the bond measures that have been recently proposed seem deficient in not considering this. The concept of assessing water users to fund a significant portion of the ecosystem regeneration seems to be inconsistent with the principle sated in (4.2).